

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 2002362972

PUBLICATION DATE : 18-12-02

APPLICATION DATE : 05-06-01

APPLICATION NUMBER : 2001169431

APPLICANT : KYOCERA CORP;

INVENTOR : IKEDA JUNJI;

INT.CL. : C04B 35/48 A61K 6/04 A61L 27/00

TITLE : ZIRCONIA CERAMICS FOR LIVING ORGANISM AND METHOD OF MANUFACTURING FOR THE SAME

ABSTRACT : PROBLEM TO BE SOLVED: To provide zirconia ceramics for living organisms of which the mechanical characteristics, more preferably slidability, are not drastically degraded in spite of long-term use and a method of manufacturing for the same.

SOLUTION: The zirconia ceramics for living organisms of $\leq 0.02 \mu\text{m}$ in the arithmetic average roughness Ra on the surface after an accelerated deterioration test carried out under conditions of 152 hours in saturated steam of 121°C and 0.20 MPa satisfying International Standard ISO 13356: 1997. The method of manufacturing the zirconia ceramics for living organisms comprises subjecting a molding of raw material powder to primary firing at a temperature ranging from the lower limit temperature of the temperature conditions under which the open porosity after firing relating to this molding attains $\leq 0.1\%$ to +100°C, then to hot isostatic pressing treatment within a range of -10 to +100°C with respect to the lower limit temperature and regulating the average crystal grain size of the ceramics to $\leq 0.2 \mu\text{m}$.

COPYRIGHT: (C)2003,JPO